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(71) Applicant (for all designated States except US): MICRO-MASS UK LIMITED [GB/GB]; Atlas Park, Simonsway, Manchester M22 5PP (GB).

(72) Inventors; and

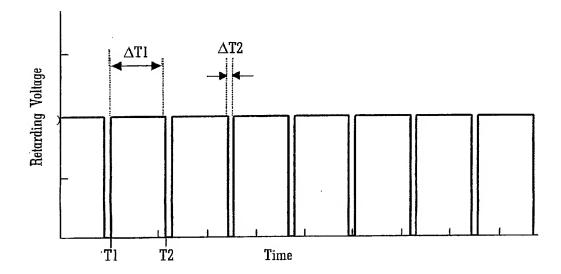
(75) Inventors/Applicants (for US only): GREEN, Martin [GB/GB]; Grange Croft, Grange Road, Bowden, Altrincham, Cheshire WA14 3EE (GB). WILDGOOSE, Jason,

Lee [GB/GB]; 110 Barcicroft Road, Heaton Mersey, Stockport SK4 3PJ (GB). PRINGLE, Steven, Derek [GB/GB]; Linden Cottages, Temple, Hoddlesden, Darwen BB3 3PS (GB). GILES, Kevin [GB/GB]; 19 Bonington Rise, Marple Bridge, Stockport, Cheshire SK6 5DW (GB).

- (74) Agent: JEFFREY, Philip, Michael; Frank B. Dehn & Co., 179 Queen Victoria Street, London EC4V 4EL (GB).
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(54) Title: MASS SPECTROMETER



(57) Abstract: A mass spectrometer is disclosed comprising an ion beam attenuator which attenuates an ion beam repeatedly switching between a zero transmission mode of operation during a time period ΔT_1 and a non-zero transmission mode of operation during a time period ΔT_2 . The degree of attenuation of the ion beam can be varied by varying the mark space ratio $\Delta T_2/\Delta T_1$. The ion beam attenuator may release ions in packets or pulses but the packets or pulses of ions may be converted into a continuous ion beam by a relatively high pressure ion guide or gas collision cell arranged downstream of the ion beam attenuator.

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SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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